



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

HC

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
|-----------------|-------------|----------------------|---------------------|
| 09/251,315 | 02/17/99 | DINWIDDIE | 33213-180290 |

LM02/0412

A JOSE CORTINA
KILPATRICK STOCKTON
4101 LAKE BOONE TRAIL
SUITE 400
RALEIGH NC 27607-6519

EXAMINER
HUANG, S

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2/11 | A |

DATE MAILED: 04/12/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/251,315

Applicant(s)
Dinwiddle et al.

Examiner
Sam Huang

Group Art Unit
2711



- ☐ Responsive to communication(s) filed on _____
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

- ☒ Claim(s) 1-60 is/are pending in the application.
- Of the above, claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-60 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claims _____ are subject to restriction or election requirement.

Application Papers

- ☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☐ received in Application No. (Series Code/Serial Number) _____
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

- ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- ☒ Notice of References Cited, PTO-892
- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4
- ☐ Interview Summary, PTO-413
- ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2711

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

2. Claims 1, 2, 6, 7, 8, 9, 12, 25, 26, 35, 37, are rejected under 35 U.S.C. 102(e) as being anticipated by Coutinho (US 5,760,822).

Regarding claim 1, Coutinho discloses a method and device for use with a communication system having a single cable line containing externally transmitted data within a fixed frequency band for providing interaction between a transmitting terminal device and a receiving terminal device without disrupting the externally transmitted data (see Abstract). In one embodiment, Coutinho reveals that the home network arrangements "may be replaced with communication terminal devices such as video phones, facsimile machines, computers, etc." which operates on unmodulated digital signals. (Col. 7, lines 57-67). Accordingly, Coutinho shows the method of exchanging unmodulated digital signals between digital signal apparatus, including computers, over a single conductor coaxial cable simultaneously with broadband transmission of RF modulated video signals between video signal apparatus over the same cable,

Art Unit: 2711

the video apparatus including one or more video signal sources and one or more video signal receivers, the coaxial cable having an inherent cable characteristic impedance. (Figs 4 and 5, cols. 4-8). Coutinho further shows the steps of: establishing a plurality of signal frequency channels, including an RF video signal channel and a PC digital signal channel, each frequency channel having a different frequency range (col. 5, lines 22-49); connecting the signal input and output ports of each digital signal apparatus to a first terminal of a digital signal frequency filter; a second terminal of which is connected to the coaxial cable, the digital signal frequency filter having a frequency passband which is substantially equal to the frequency range of the PC digital signal channel, the digital signal frequency filter providing a substantially equal filter characteristic impedance to unmodulated digital signals exchanged bi-directionally (Id.); and connecting each RF modulated video signal apparatus to the cable through an RF video signal frequency filter having a frequency passband which is substantially equal to the frequency range of the RF video signal channel, the RF video signal frequency filter providing a substantially equal filter characteristic impedance to RF modulated video signals propagating two-way communication between the RF modulated video signal apparatus and the cable (Id.).

As for claim 2, Coutinho illustrates the method of assigning a lower range of signal frequency values to PC digital signal channel than to RF video signal channel. (See fig. 5).

As for claims 6, 7, and 8, Coutinho provides a plurality of signal frequency filters which may be in any order (col. 7, lines 57-67, col. 8, lines 1-25).

Art Unit: 2711

As for claims 9, Coutinho states that the particular frequency ranges described and indicated in Fig. 5, are for exemplary purposes only and that other frequency ranges may be assigned or selected. (Col. 8, lines 1-10).

As for claim 12, please see comments regarding claim 1 above.

Regarding claim 25, please refer to comments pertaining to claim 1. Additionally, Coutinho shows installing multi-drop signal distribution apparatus having a source input for receiving the RF modulated broadcast television signals from the broadcast source and having a plurality of output signal ports for receiving the RF modulated video signals and unmodulated digital signals from each of the plurality of coaxial cables; coupling the RF broadcast signals within the signal distribution apparatus; coupling the RF modulated video signals and the unmodulated digital signals received; and connecting each appliance to its associated coaxial cable through an associated one of a plurality of signal frequency filters.

As for claim 26, Coutinho provides the RF video signal passband is higher than other signals such as the digital signal filter.

As for claim 35, Coutinho teaches a block converter 210 for blocking the RF modulated video signals and unmodulated digital signals from being coupled to the source input. (Fig. 4).

Regarding claim 37, please see comments pertaining to claim 25 above.

Art Unit: 2711

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 4, 5, 10, 11, are rejected under 35 U.S.C. 103(a) as being unpatentable over Coutinho in view of Lee et al. (US 5,485,630, hereinafter "Lee").

Regarding claim 3, Coutinho does not specifically address inserting a impedance matching network. However, Lee provides a audio/video home distribution network and in passing reveals an impedance matching feature (col. 8, lines 8-20). Therefore, it would have been obvious to one skilled in the art to include an impedance matching network for, inter alias, maximizing power applied to the load.

As for claims 4 and 5, although Coutinho and Lee does not specifically address the elements of the impedance matching network, it is well known in the art that the element of a impedance network comprises, among other things, resistors. Therefore, it would have been obvious to one skilled in the art to connect the resistors in series in order to obtain the desired impedance outcome.

Concerning claim 10, it is well known in the art to transmit signal bit speed at a minimum of 1.0 Mbps. Thus, it would have been obvious to one skilled in the art to set a minimum bit speed of 1.0 Mbps so that information may be transferred quickly.

Art Unit: 2711

As for claim 11, it is well known in the art to set an impedance value in order to minimize interference.

As for claims 27-34, 36, please see comments pertaining to claims 3-11.

Regarding claims 49-60, Coutinho does not specifically disclose a plurality of IR transceivers, such as a set-top box responsive to IR command signals, set-top box transceivers are extremely well known in a coaxial cable TV environment. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include set-top boxes so that the user may easily access and benefit from a plurality of features included in the set-top box as intended by the distributors.

Claims 13-24 are the apparatus claims of method claims 1-12. Accordingly, claims 13-24 are similarly rejected for the reasons provided in the foregoing paragraphs.

Claims 38-45 are the apparatus claims of method claims 25-37. Thus, claims 38-45 are also rejected for the reasons given above.

Conclusion

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

Art Unit: 2711

(703) 308-6306 or -6296, (for formal communications; please mark "EXPEDITED PROCEDURE", for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Huang whose telephone number is (703) 305-0627. The examiner can normally be reached on M-Th from 8:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile, can be reached on (703) 305-4380.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

SH

April 10, 2000


ANDREW I. FAILE
SUPERVISORY PATENT EXAMINER
GROUP 2700